

REMARKS

This is in response to the Office Action dated January 11, 2005. Non-elected claims 24-32 have been canceled, without prejudice in view of the Restriction Requirement. Thus, claims 1-23 are now pending.

Claim 1 stands rejected as being allegedly anticipated by JP '462. This Section 102(b) rejection is respectfully traversed for at least the following reasons.

Initially, it is noted that JP '462 is discussed in the background section of the instant application, and is illustrated in Prior Art Figs. 238-239. The Section 102(b) rejection based on JP '462 is incorrect for at least the following reasons.

Claim 1 requires both that: (1) the island-like semiconductor layer has cross-sectional widths varying in stages so as to have different widths at different distances from the semiconductor substrate, and (2) an insulating film (e.g., tunnel oxide) capable of passing charge provided at least in a part of a plane of the island-like semiconductor layer horizontal to the semiconductor substrate. JP '462 fails to disclose or suggest both of these aspects (1) and (2) of claim 1, as will be explained below in detail.

With respect to feature (1) of claim 1, see for example Fig. 7 of the instant application where the island-like semiconductor layer 110 has cross-sectional widths which get smaller moving away from the substrate 100. In the Fig. 7 embodiment, a plurality of steps are formed on the sidewalls of the island-like semiconductor layer. There is no disclosure or teaching in JP '462 of any width variation for an island-like semiconductor layer. Instead, in APA Fig. 239 for example the island-like semiconductor layer has a *uniform width* from its bottom to its top – the opposite of what claim 1 requires. Thus, JP '462 fails to disclose or suggest feature (1) of claim 1.

With respect to feature (2) of claim 1, Fig. 7 of the instant application for example illustrates a tunnel oxide film 440 which is located on the top of a step defined by the island-like semiconductor layer. On top of the step, the tunnel oxide 440 is in a “horizontal” orientation and in part of a “plane” of the island-like semiconductor layer as called for in claim 1. JP ‘462 fails to disclose or suggest this aspect of claim 1. In contrast with feature (2) of claim 1, in JP ‘462 the tunnel oxide is *only vertically aligned* between the island-like semiconductor layer and the floating gate as shown in APA Fig. 239 (see tunnel oxide 5 in APA Fig. 239). Again, JP ‘462 teaches the opposite of what claim 1 requires and is unrelated to the claim.

For at least the above reasons, the Section 102(b) rejection should be withdrawn.

Claim 1 also stands rejected under the doctrine of obviousness-type double patenting over claims of U.S. Patent No. 6,727,544. This double patenting rejection is respectfully traversed for at least the following reasons.

Claim 1 requires “an insulating film capable of passing charges is provided at least in a part of *a plane of the island-like semiconductor layer horizontal to the semiconductor substrate.*” For example and without limitation, Fig. 7 of the instant application for example illustrates a tunnel oxide film 440 which is located on the top of a step defined by the island-like semiconductor layer. On top of the step, the tunnel oxide 440 is in a “horizontal” orientation and in part of a “plane” of the island-like semiconductor layer as called for in claim 1.

The claims of the ‘544 Patent fails to disclose this quoted feature of claim 1 (JP ‘462 also fails to disclose or suggest this quoted feature of claim 1). Moreover, this claimed feature would not have been obvious in view of the art given the ‘544 Patent. Thus, the obviousness-type double patenting rejection is respectfully traversed for at least this reason.

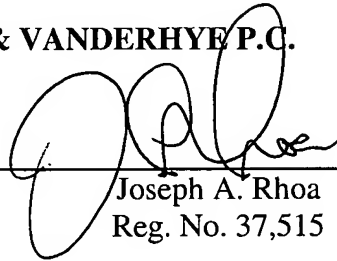
ENDOH et al.
Appl. No. 10/727,266
July 11, 2005

In view of the above, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____



Joseph A. Rhoa
Reg. No. 37,515

JAR:caj
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100